



RAYMOND
ENGINEERING

**Visual Roof Evaluation Survey Report
North Dekalb Cultural Arts Center
Dunwoody, Georgia 30346**



**Prepared For:
City of Dunwoody
41 Perimeter Center East, Suite 250
Dunwoody, GA 30346**

April 3, 2012

Daniel Van Briesen, E.I.T.

Raymond Ramos, P.E., R.R.C.

April 3, 2012

Mr. Michael Smith, P.E.
Director of Public Works
City of Dunwoody
41 Perimeter Center East, Suite 250
Dunwoody, GA 30346

Subject: Roof Condition Survey for North Dekalb Cultural Arts Center, Dunwoody, GA.

Mr. Smith,

Thank you for your consideration in selecting Raymond Engineering, GA-LLC to provide a Visual Roof Evaluation Survey of the Cultural Arts Center facility located at 5339 Chamblee Dunwoody Road, Dunwoody, GA 30346. The survey was performed on Monday, April 2, 2012, by Daniel Van Briesen, E.I.T. The survey consisted of a visual inspection of the accessible roofs and walls above the roof line, and an investigation of known leaks. Observations were documented with representative photographs, which are included in this report. Additional photographs are on file, and available upon request.

Please find included in this report our observations and recommendations. If you have any questions or concerns, please do not hesitate to contact us. Thank you.

Respectfully submitted,
RAYMOND ENGINEERING-GEORGIA, LLC

Daniel Van Briesen, E.I.T.
Staff Engineer

Raymond Ramos, P.E., R.R.C.
President, Senior Engineer

Executive Summary

ROOF AREAS – A through I:

The roof areas are covered with an aggregate-surfaced asphalt built-up roof system over a structural concrete deck. Stained drop ceiling tiles were observed at numerous locations inside the building. Membrane and flashing repairs were observed at several isolated locations. Parapet flashings are not adhered to the interior face of the parapets at isolated locations and exposed fasteners have been improperly applied through membrane flashings. Expansion joint covers are deteriorated and open to water infiltration. Gravel stop fascia and gutters are rusted and deteriorated on the various roof areas. Drain strainers are clogged in some instances, and drains are not adequately secured to the leaders and decking at isolated locations. Pipe penetration flashings are deteriorated at most locations.

Based upon our visual observations, the reported leak history, and the reported age of the roof system; the roof system has reached the end of its economic life and will need to be replaced in the near future.

METAL ROOF AREAS:

The metal roof areas consist of a standing seam metal panel system. The metal panels are showing slight signs of rust where the paint has chipped off. Small repairs are present throughout the metal roof system. Edge metal has come loose at one location and several exposed fasteners are rusted.

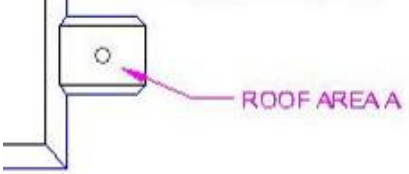
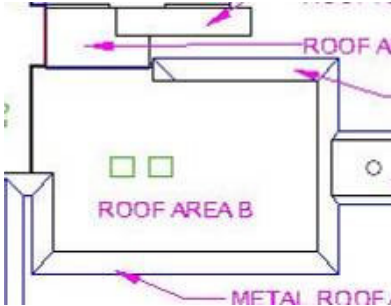
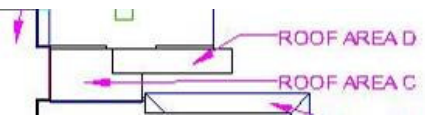
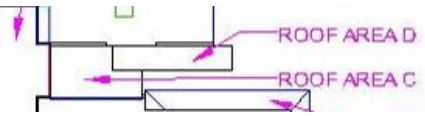
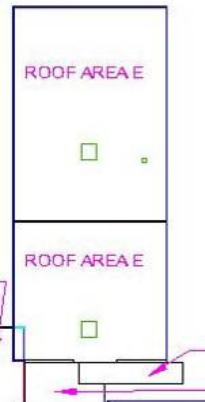
Based upon our visual observations, the reported leak history, and the reported age of the roof system, the Metal Roof Areas are performing adequately and with recommended repairs and continued maintenance, the roof system can be expected to perform adequately for approximately 15 to 20 years.

EXTERIOR WALLS ABOVE GRADE:

Mildew stains were observed at a few locations on the exterior walls at scupper locations. Instances of missing caulking at through wall pipe penetrations were observed. We recommend proper sealant be applied at locations where pipes penetrate the walls.

Please find below photographs with descriptions taken during the survey. These photographs were selected as representative of deficiencies and anomalies observed during the survey inspection.



Roof Area Designations					
Drawing	Area Designation	Building Type	Size	Roof Type	Condition
	Roof Area A	Cultural Arts Center	600 square feet	Built Up Aggregate Surface	Poor
	Roof Area B	Cultural Arts Center	6,150 square feet	Built Up Aggregate Surface	Poor
	Roof Area C	Cultural Arts Center	665 square feet	Built Up Aggregate Surface	Poor
	Roof Area D	Cultural Arts Center	480 square feet	Built Up Aggregate Surface	Poor
	Roof Area E	Cultural Arts Center	11,700 square feet	Built Up Aggregate Surface	Poor





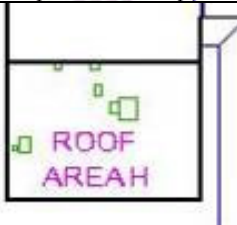
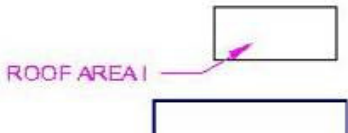
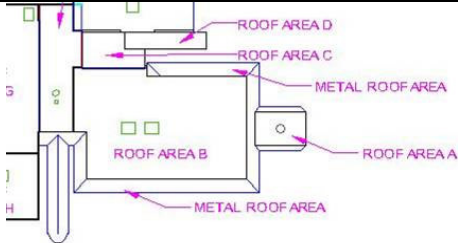
Roof Area Designations (Continued)					
Drawing	Area Designation	Building Type	Size	Roof Type	Condition
	Roof Area F	Cultural Arts Center	1,700 square feet	Built Up Aggregate Surface	Poor
	Roof Area G	Cultural Arts Center	4,900 square feet	Built Up Aggregate Surface	Poor
	Roof Area H	Cultural Arts Center	2,200 square feet	Built Up Aggregate Surface	Poor
	Roof Area I	Office Space/ Warehouse	900 square feet	Built Up Aggregate Surface	Poor
	Metal Roof Areas	Office Space/ Warehouse	3,400 square feet	Metal Roof Panels	Fair



Photo Log – Interior



1. Stained ceiling tiles located below a roof drain on Roof Area B.



2. View of drain leader and concrete deck.



3. Stained ceiling tiles.



4. Stained Ceiling tiles located below Roof Area F. The previous tiles in this location collapsed and were replaced about a year ago.



Photo Log –Roof Area A



5. Overview of roof area A.



6. Some cracks are present in the skylight base flashing.



7. The base flashings between Roof Area A and the metal roof are non-existent. No sealant is present at this juncture.

8. Not Used.

Photo Log – Roof Area B



9. Overview of Roof Area B.



10. Exposed fasteners are installed through modified bitumen membrane flashings. Fasteners are rusted and deteriorated.



11. Repairs at base flashing laps. Exposed fasteners are installed through modified bitumen membrane flashings.

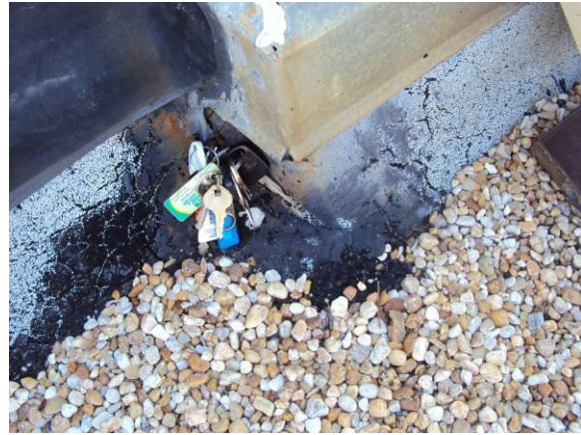


12. The sealant at the laps in the base flashings is deteriorated.

Photo Log – Roof Area B



13. The expansion joint junction at B and F and the counter flashing at B and C are deteriorated.



14. The base flashings in this location have open voids.



15. Repairs made to the base flashings near the metal roof areas.



16. Repairs made at pipe penetration.

Photo Log – Roof Area B/Roof Area C



17. Plastic drain strainers are cracked and loose throughout Roof Area B. This drain is believed to be the cause of the leak shown in photograph # 1 and # 2.



18. Open flashing lap.



19. An overview of Roof Area C.



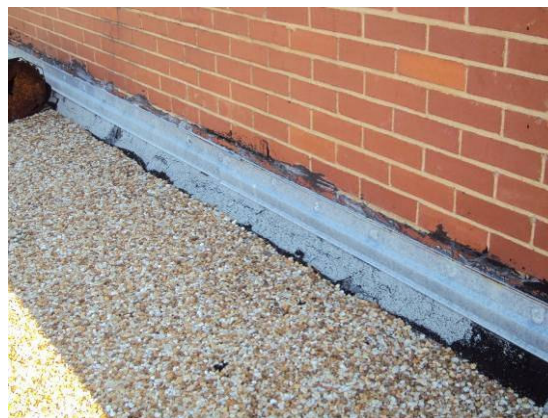
20. The gutter and gravel stop at Roof Area C are rusted and deteriorated.



Photo Log – Roof Area C/Roof Area D



21. Roofing felts are exposed and deteriorated at the gravel stop.



22. Sealant above counter flashings is deteriorated.



23. An overview of Roof Area D.



24. Base flashings are not secured and are open to water infiltration.



Photo Log – Roof Area D/Roof Area E



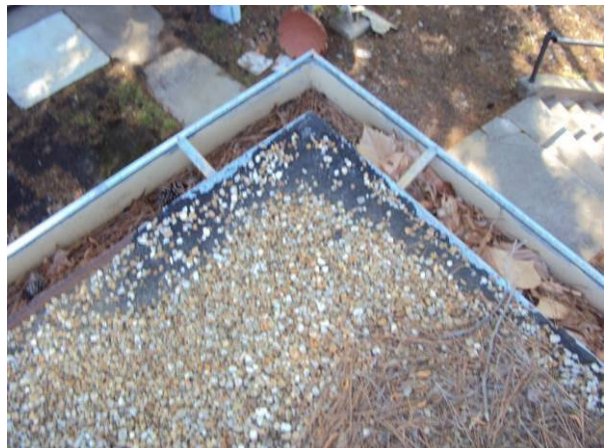
25. The gutters at Roof Area D are rusted and generally in poor condition.



26. An overview of Roof Area E.



27. The gutters and gravel stop at roof area E are generally in poor condition.

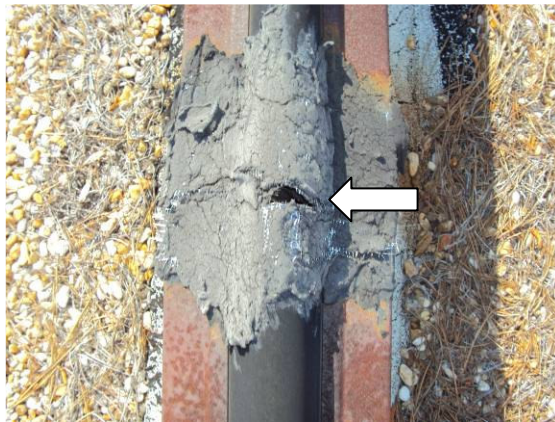


28. Debris is present in the gutters.

Photo Log –Roof Area E



29. Pitch pans are beginning to crack. Also visible is a large repair around a roof top unit.



30. Open hole in expansion joint cover. Previous cement repairs have failed at this location.



31. The juncture between a parapet wall and gravel stop is generally in poor condition.



32. The expansion joint closure is poorly executed. Gutters and expansion joint cover are rusted.



Photo Log – Roof Area F



33. An overview of Roof Area F.



34. The expansion joint and base flashings between areas C and F are generally in fair condition.



35. Bituminous cement repairs at the juncture of roof areas F and G.



36. Open base flashing lap.

Photo Log – Roof Area G



37. The gutters at Roof Area G are rusted and deteriorated.



38. The conductor head and downspout is rusted.



39. The base flashings on the roof top units show signs of stress cracking and deterioration at the laps.



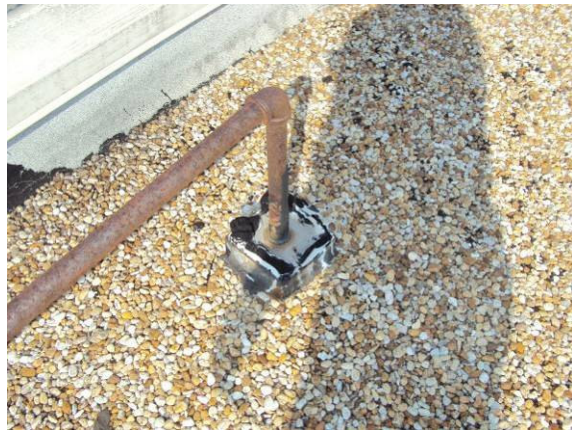
40. Bituminous cement repairs at base flashing laps.



Photo Log – Roof Area H



41. An overview of Roof Area H.



42. The pitch pans are not adequately filled.
Gas lines are rusted.



43. The surface mounted counter flashing is beginning to rust.



44. Bituminous cement repairs at membrane base flashings. Vent hood is rusted.



Photo Log – Roof Area I/Metal Roof Areas



45. A fascia board at Roof Area I is deteriorated.



46. The gravel stop at Roof Area I is generally in fair condition.



47. Repairs made to the metal roof panels near Roof Area A.



48. Sealant repairs made to the metal roof juncture at Roof Area A.

Photo Log – Metal Roof Area



49. The fascia metal has come loose near Roof Area B.



50. Water appears to be ponding in the valleys. Sealant repairs have been made in this area.



51. The metal roof area at the entrance appears to be in good condition.



52. Exposed fasteners are rusted.

Photo Log – Exterior



53. The soffit at Roof Area E is stained. The gutter is deteriorated at this location.



54. The conductor head and downspout are leaking at this location.



55. Pipe penetration not sealed at Area H.



56. The EIFS is deteriorated at Roof Area A near the entrance.